

## **Transcript HPV Vaccine Starts at 9: Why? How? Now! Cancer Prevention Made Easy Webinar**

May 16, 2023

- Greetings, everybody. We're just waiting for everybody to file on in. It looks like we're getting a pretty good amount of people joining. Okay. Well, I think in respect of everybody's time, we can get started today. So, hello everyone, and welcome to this Washington State Department of Health webinar. The title for today's webinar is Vaccine Starts at 9, or HPV Vaccine Starts at 9: Why? How? Now! Cancer Prevention Made Easy. So for those of you who don't know me, I'm Phil Wiltzius, I'm a school and childcare immunization health educator for the Department of Health, and I will be the facilitator today. So let's go over a couple of housekeeping items before this webinar gets started. So like most of our webinars, all attendees are muted and the chat box is disabled. If you have questions about the presentation, please type them into the Q&A box. We will answer questions at the end of the presentation. And we ask that people keep questions on topic and relevant to this specific webinar. Of course you can find more information about continuing education on our webpage, but we do offer continuing education for physicians, nurses, medical assistants, pharmacists, and pharmacy techs today. You'll need to watch either this live webinar or the recording and then complete the evaluation at the end of the webinar. And I'll talk a little bit more about that when we are wrapping up. Okay, so I'm just gonna run through some accreditation slides real quick. Our webinar was approved through the Accreditation Council for Continuing Medical Education through the Federation of State Medical Boards and the Washington Medical Commission. This webinar is approved for one AMA PRA Category 1 credit. On this next slide here, our webinar is also approved by the Montana Nurses Association for nursing continuing professional development of one contact hour. And the American Association of Medical Assistants likewise has approved this webinar for one continuing education credit. And the state pharmacy association has approved this webinar for one hour of continuing pharmacy education. Moving on to disclosures. None of the planners or speakers of this webinar have any relevant financial relationships with any commercial interests pertaining to this activity. The learning objectives today for this webinar are as follows: describe HPV-related cancers and HPV vaccination rates in Washington and in the United States, identify at least three benefits of starting HPV vaccination at age nine, and discuss clinic strategies to support workflows for HPV vaccination starting at age nine. We have a variety of wonderful presenters today. We we have Kathy Bay, the Department of Health clinical, quality, and school section manager. Sherri Zorn, an MD and American Academy of Pediatrics fellow who is a part of the Washington HPV Free Task Force. Carrie Jenner is a MD and American Academy of Pediatrics fellow and the medical Director of Pediatrics for the Franciscan Medical Group. And we have Amy Carter, MD and American Academy of Pediatrics fellow as well, and she is the chief medical officer of Allegro Pediatrics. With that, I'm gonna turn it over first to Kathy, who is going to present.

- Good afternoon. I'm gonna focus just primarily on the idea of just the information that's available from the Department of Health regarding HPV at 9. So, next slide. So, the Department of Health has created multiple clinical materials, and there'll be some information at the end of the presentation about some resources. But just to set the stage, Department of Health has done several announcements encouraging providers to consider beginning immunizations for HPV at age nine. So the first in 2017, a subsequent one that is on the screen here in 2020. And then in 2022, we actually made some additional recommendations and changes in the way that we approached the system or encouragement. Next slide. Som the HPV at 9 initiative as it's defined is... In the summer of last year, our Washington State Vaccine Advisory Committee requested that we review and assess based on what the national standards were. There was a presentation to the VAC, and they actually ask Department of Health for that move forward to make it be a stronger recommendation to providers in Washington State who were administering vaccines to be able to do that a little bit earlier and ensure that providers were aware of

that initiative and the ability to be able to begin at nine. And so one of the things that was done was beginning in January of 2023, so a little earlier this year, our Washington State Immunization Information System, the IIS, began prompting for the first dose of the HPV vaccine to be given at age nine. Previously it had been at the 11 to 13, and that is still a time if a child has not begun vaccination at age nine, but really to ensure that providers were aware that we do and it is allowed under the ACIP guidance. Research has shown that starting at age nine, it has a positive impact on completion and immunity, which will be talked about a lot today. Next slide. So, question for you. In this poll question, we'd love for you to share what happens at your facility. Do you and other staff log into the system? If you could just read the information that's available there and answer that question. We're gonna give you just a couple of moments to vote. Okay. Phil, can you give us an update on the poll?

- [Phil] Yes. It looks like we've got about half answered, so I'm going to end the poll here and share the results. So it looks like the largest amount is before the visit, followed by do not check, and then a mix of everything else.

- Thank you. I appreciate it. Okay. Next slide. So this is actually what, if you look directly in the IIS system, what you would see in that forecast mode that I'm talking about. And the forecast is just a tool within the IIS that helps you know when those vaccines are recommended for an individual. And so you can see that based on this change of the IIS, what you would see in the system is that this individual who is due at age nine or recommended at age 9, it would show as a recommended dose for this child. And this is not a real child, this is in our QA system that we use for testing information. So it gives the providers the direction and encouragement to recommend at age nine. It's not a requirement. It does allow for provider and for patient choice, or in this case guardian choice in some situations. But the key piece is that we'll recommend for that forecast to show at age nine for dose one and then the subsequent dose to follow based on when the first one is given. Next slide. We're gonna pop up a poll question for this one as well and just ask you to tell us how you know that a child, again... If your EHR is using... Sometimes some organizations, the EHR, the electronic health record, actually will pull the information directly from the IIS, and it's a two-way feed. Sometimes it's done as an independent. And you did give us some information before, but we're just trying to understand the impact of this change in our IIS system as we keep moving forward with these recommendations. And, Phil, any update for us on the poll?

- [Phil] People are still answering and trickling in, but it looks like we're about half again. So I will end the poll here and share the results. It looks like most people said both A and B.

- Hmm. Okay, great. Okay, thank you very much. Next slide. So just, again, we've already referred to this, but just to add one more comment in there. Department of Health does have some materials available. There's a Washington State Task Force for HPV. And I think for us the key is we really wanna encourage providers to move forward with that recommendation, or allowance at any rate, for children to be able to be vaccinated at age nine to increase completion of the series. With that, I will hand off to Sherri.

- Thank you very much. I'm really pleased to be here. My name is Dr. Sherri Zorn. I'm a pediatrician with more than 30 years of patient care experience, and now I work exclusively as a quality improvement coach. So HPV vaccine truly starts at age nine. It's a simple, successful, and sustainable approach to making cancer prevention easy. Next slide. So my journey started in 2017 in April when I received the Dear Provider letter. And I have to say, when I first saw this, I thought, "Hmm, age nine, that's really strange. I wonder why. And it's really probably not worth the hassle to change our workflows." And then when we... You know, a couple of us were still kind of curious, we thought, "Well, let's just try it and see

what happens. And we actually didn't, the two of us didn't know that each other was experimenting with it. But what we found is when we started recommending at age nine, unbundling was actually easier, easier to recommend just the HPV vaccine all by itself. There was more time and space at the 9 and 10-year-old visit. And as a surprise, it was actually kind of easier. The conversations with parents flowed better and there was less focus on sex. And then over the next couple of months, we measured our HPV completion rates at age 13, and we found out, "Gosh, they really aren't as great as we thought they were." So with that being said, we decided to take, "Let's take a deeper dive into this. Let's make sure that the vaccine is safe," it is, "and that starting at nine provides great immunity," and actually that's true as well. And we also discovered that a dosing interval of 12 months works great, and we confirmed that it was allowed with the CDC guidelines. And so we couldn't find any downsides. So with that, we took it back to our group and said, "Hey, guys, we really need to do this. And if anything, it at least will give us a few more years to get kids, you know, catch kids for their, to give them the recommendation and to raise our rates." So that's how our journey started. And I'm really hopeful that today you'll join me on this journey. And we were really surprised to see how simple and successful it was. Next slide. So, first, it's really important to understand a little bit about HPV cancers. In the United States, there's over 37,000 cases of HPV cancers every year in men and women, and an additional 200,000 cases of cervical precancers. HPV infections are usually acquired in the teen and young adult years, and although most infections fortunately resolve spontaneously, persistent HPV infection can cause precancers and cancers years and decades later. And it's really important to know that HPV infection does not require sexual activity, it can be transmitted simply by skin to skin contact. While cervical cancer is probably the most widely recognized of the HPV cancers, oral pharyngeal cancers, those occurring in the throat and the back of the mouth, are now more common than cervical cancers, and four out of five of these cases occur in men and the rates are rising. This is really concerning. Next slide. Fortunately, the HPV vaccine is a powerful tool to prevent HPV infections and HPV cancers. It's not a new vaccine anymore, and it's been proven safe with over 15 years of safety data and ongoing robust monitoring system. The immunity induced by the vaccine is very long lasting, it doesn't wear off, and there's no indication that a booster dose will be needed. And most importantly, the HPV vaccine is effective. It's estimated that our current nine-valent HPV vaccine used in the United States can prevent over 90% of future HPV cancers. We also know that the vaccine works best when completed by age 13, and this is for a couple of reasons. First, there's better immunity and higher titers before age 13. It's also really important to get the vaccine before any exposure, and it provides the best protection against future cancers when given at that younger age. Next slide. Several studies have shown that HPV vaccine provides protection against HPV infection, genital warts, and precancers. But because HPV cancers take years or decades to develop, it really takes some time to be able to prove that it prevents cancer. And so it was so exciting when this study was published from England in 2021. It was one of the first studies to show a reduction in cervical cancer incidents. So in England, age 12 to 13 was the standard age for vaccination using the bivalent vaccine that protected against two serotypes. This registry-based study found that vaccination worked better at younger ages. And when girls were vaccinated at 12 to 13, there was a 97% reduction in cervical precancers and an 87% reduction in cervical cancers. Waiting just a few years to vaccinate reduce the effectiveness remarkably, so younger is better. Now, we don't know if vaccinating at age 9 to 10 will be clinically superior to this since it wasn't studied; but what we do know, that it's really important to get vaccinated by age 13. Next slide. Thank you. As you probably know, the routine age in the United States for HPV vaccination is 11 to 12, along with Tdap and meningococcal ACWY vaccine. So in theory, this strategy should ensure vaccination by age 13, but unfortunately it hasn't worked out that way. This map of Washington counties shows the up to date rates by the 13th birthday for 2022, and it's based on data from the Washington State Immunization Information System, or WAIS. These rates are not directly comparable to the rates published in the annual NIS Teen National Immunization Survey, if you're familiar with that. That survey collects data differently than WAIS, and it includes only about 350

patients from Washington each year, whereas this data reflects Washington's entire population of 13 year olds. As a reminder, the Healthy People 2030 goal is 80% for HPV series completion, or up to date as it's called, at age 13 to 15. And this map shows us that the HPV completion rate by county ranges from 5% to 43%, with an average of 31%. You can check how your county is doing. The lighter blue indicates lower rates and the darker blue indicates higher rates of on-time completion. As you can see, we are falling far short of the Healthy People goal. We can do better and we need to do better if we're serious about protecting our children from HPV cancers. Next slide. So a frequent question that I hear is: "Does forecasting at age nine comply with the CDC ACIP recommendations?" And the answer is absolutely yes. The current CDC ACIP recommendations for HPV are follows: Children and adults aged 9 through 26 years. HPV vaccination is routinely recommended at age 11 or 12 years. Vaccination can be given starting at age nine years. In Washington state, the recent change in the WAIS forecast to age nine just emphasizes this last sentence. Vaccination can be given starting at age nine years. It gives providers direction and encouragement to recommend at age nine. And as Kathy Bay mentioned, it's not a requirement, it still allows for parent and provider choice. And most importantly, starting at age nine is considered best practice by the American Academy of Pediatrics since actually 2018, the American Cancer Society, and the National HPV Vaccination Roundtable. Next slide. So let's dive deeper into why we should be recommending HPV vaccine at age nine, kind of the science behind age nine. So, first of all, it induces a very robust immunity. The highest titers occur when kids are vaccinated between the ages of 9 and 12. And as I mentioned, it results in easier conversations with a focus on cancer prevention instead of sex. Immunizing at nine allows for fewer shots per visit, and this is really preferred by a lot of parents and kids. They'd like to space out their shots so they don't have to get all three at the adolescent bundle at age 11 to 12. And by starting at age nine, there's a full four years to get both doses completed by age 13. This is really great for parents or patients who might be hesitant or need more time to learn about the vaccine. And also it helps during disruptions in care like we've experienced during the pandemic. And finally, starting at age nine results in higher completion rates, which means more cancers will be prevented. Next slide. So here's the HPV vaccine dosing schedule. It's the same for all genders. On-time dosing is two doses between ages 9 and 12. Doses can be separated six to 12 months apart. If vaccination is started after the 15th birthday, three doses are required. And individuals ages 27 to 45 can also be vaccinated, but it's not routinely recommended due to the low benefit at this age. Here's a quick tip. With the younger age group of 9 to 12, many clinics adopt a 12-month dosing interval, which can really streamline workflows. It actually leads to higher titers when we review those studies and it allows the parents to skip the shot-only visit at six months. Parents are happy about this and the staff is happy. And one other note is that for all age ranges if there's a extension of the dosing interval beyond the recommended interval, there's no need to restart the series, just pick up where you left off. Next slide. So the literature on the benefits of starting at age nine has really grown over the last few years. Here are a couple of my favorite articles. And I'll talk about each or some of these throughout the next few slides. But I recommend checking out the special edition of "Human Vaccines and Immunotherapeutics," which contains a growing collection of articles about starting at age nine. And the link is provided here. Next slide. So one of the major benefits is that providers have a positive experience when they recommend before age 11. In this study, they interviewed providers in Boston about their experiences recommending before age 11. And the general sentiment was, "It was easier than I thought." The providers uniformly reported high parental acceptance, reduced concerns related to sexual activity, and they highlighted the benefits of fewer shots per visit and more opportunities to complete the series. So while changing your workflows might be hard, if the result is easier, it's a reward for change. So this is a win-win for providers and staff. So keep that in mind. Next slide. And you won't be alone in recommending HPV at age nine. These are graphs from two national surveys conducted in 2021 and 2022. The orange graph on the left shows that 69% of primary care providers that were surveyed were currently or willing to recommend at age nine. And the blue graph on the right shows that 65% of the surveyed FQHC providers were already

strongly recommending at age 9 to 10. Next slide. And we talked about the higher rates of on-time completion. So this study is from two FQHCs in Boston, and it showed higher rates of on-time completion once they started recommending, and they recommended at age 10. The two graphs on the left showed initiation rates rising at age 10 and age 11 to 12. And the two graphs on the right show completion rates rising at 11 to 12 and by the 13th birthday. They reached a remarkable 88% at by the 13th birthday and surpassed the Healthy People 2030 goal. And this study actually does span the pandemic as well. Next. And here's another study that looked at national claims data. What they found was that for both privately and publicly-insured individuals, the on-time completion by age 13 was almost 30 percentage points higher in the individuals who start at age 9 to 10, as indicated by the light blue bars, compared to those that started at age 11 to 12, the dark blue bars. So it increases your on-time completion. Next. So now we'll pause for a knowledge check. It'll give a chance to breath as well. What is a benefit of starting HPV vaccine recommendation and administration at age nine? A, robust immune response between age 9 and 12; B, easier conversations with parents and patients; C, improved on time completion of HPV series by age 13; or D, all of the above. And the answer is D, all of the above. Next slide. So let's get back to the story I was telling you at the beginning. So these two pediatric clinics from King County embarked on quality improvement projects to start HPV at age nine. Clinic A started in 2018 with 10 pediatricians about a year after that first Dear Provider letter. Our aim was to see if we could replicate the successful quality improvement project at another clinic. And due to the pressure of the pandemic, there was a definite emphasis on streamlining the interventions to ensure maximum success with a minimum of effort. So clinic B was recruited, it's a much larger clinic with 85 providers, and they started the QI project in 2021 during the midst of the pandemic. Next. There were multiple interventions which were easy to implement and resulted in streamlined workflows, and I'll share examples of these over the next several slides. We found that there was high acceptance and it resulted in remarkable increases in HPV vaccination rates between ages 9 and 12, and most importantly, more kids were protected from HPV cancers. Next. I mentioned high acceptance by both providers and parents. We measured this by looking at the 9 and 10-year well child visits over the course of a year beginning in 2021. The majority of patients received the HPV vaccine on the same day as the 9 year and 10-year well child visit. At clinic A, the rate was 85 to 86%. But remember they'd already been doing this since 2018, so they had had a lot of experience. At clinic B, in the first year of the project, the rate was 68 to 70%. This is remarkable. And these statistics mean that the providers and staff were recommending at age nine and the parents were saying yes and the kids were getting vaccinated. Next. The effect on the coverage rates was also remarkable. In the first year alone, both clinics experienced a 30 percentage point or more increase in HPV initiation coverage rates at age 9 to 10. In clinic A's graph on the left, you can see initiation coverage rates stabilize at about 50% after three years. Next slide. And this slide shows the coverage rates for HPV completion are up to date at age 11 to 12. Both clinics increased eight to nine percentage points in that first year. And for clinic A on the left, you can see that the rates really started increasing in the second and third year as the kids who were 9 to 10 at the beginning started aging up to the 11 to 12 age group. Completion rates at 11 to 12 increased 40 percentage points from 22% to 62%. And it was notable that there was sustainability even during the pandemic. I should also mention that our age 13 coverage rates for clinic A are now above that 80% Healthy People 2030 goal. Next slide. So this same basic quality improvement project is currently being reproduced in five clinics serving rural Washington. The providers are getting MOC credit for participating. And what we're finding is that HPV Vax at 9, as we call it, works in rural Washington too. When surveyed at the beginning, although only about 20% were recommending at age 9 to 10, 88% of the providers indicated that they were somewhat or more willing to recommend at age nine. And just two months after the initial one-hour training webinar, HPV vaccine was already being administered at a median of 50 to 67% of the 9 and 10-year-old well child visits and the HPV initiation coverage rates at 9 to 10 were already increasing by a meeting of seven percentage points. And, you know, the first training was actually March 1st, just to keep it in

perspective. One provider commented, "This has been an eye-opening experience and a big surprise that parents are welcoming of HPV at age 9 to 10." And another clinic leader commented, "Wow, I didn't think it would be this easy," and she was referring to the implementation of HPV vaccine at age 9. Next slide. So for those of you who are ready to start HPV at age 9, let's start talking about the implementation details. The most important step for any provider or clinic leader is to just be curious and willing to give it a try. And next, it's really helpful to get leadership and organizational support. You can use the resource list on [wcaap.org](http://wcaap.org) for references and links to materials to share with your leaders. And if possible, request that the HPV prompt in your EMR, electronic medical record, be changed to age nine to harmonize with the new IISS forecast. Now, some clinics are gonna face barriers with this, so don't let that discourage you. Next step is to prepare your office with HPV at 9 messaging. I'll share more about that later. And your team's gonna need training about how to best talk about the HPV vaccine. And it's really important to support your team. Please be open to their questions or concerns. They may have general questions about HPV vaccine facts, safety, and effectiveness. And it's important to acknowledge that change can be hard. Some staff and providers may be hesitant to start at age nine, and you're there to support them. Next slide. So circling back to that pesky EMR, electronic medical record. If you can optimize your EMR, it'll make everything much easier for your providers and staff to build it into their workflow. I suggest changing the prompt to age nine or using well-child order sets with HPV vaccine pre-selected at age nine. Many of you, however, will face barriers with your EMR. Your EMR team may have competing priorities, they may not understand why the prompt should be changed to age nine, and they may worry that it conflicts with ACIP; and you might need to share what you've learned today with them. But even if you can't optimize your EMR right away, you can be very successful with the other interventions I'll describe. Next slide. So they say in marketing that you need to hear or see a message multiple times before it sticks. So you want to leave a clear and concise message throughout your clinic that HPV vaccine prevents HPV cancers and it starts at age nine. These delightful posters feature a diverse representation of boys and girls all between ages 9 to 12. And these posters can be downloaded and printed from the American Cancer Society Brand Toolkit. They work great in the lobby, or exam rooms, immunization room, or even at the weight station. Next slide. And posting a standardized immunization schedule in every exam room, featuring age HPV at age nine, is a great low-tech visual cue that indicates vaccines are important and routine. Parents appreciate the posters because they like knowing what's next, and sometimes they use the poster to help them be firm with their child. And staff like the poster because it promotes standard workflow, reduces confusion and errors, and it makes their job easier, and it really helps new staff learn the schedule. Providers like the poster because it adds authority to their strong recommendation. And one provider even told me, "It's like having a second voice in the room." Now, the Department of Health has created an amazing adolescent immunization schedule "At a Glance" poster, it's the one on the left here. It's wonderful because it's ready to use today. And it's available in six additional languages. This is really important if your patients speak languages other than English. Clinics can also make their own poster. And we've made a modifiable template, and it's available on [wcaap.org](http://wcaap.org). It's available in English and Spanish for birth to age 18. But my main poster tip is make sure it's large and colorful and features HPV starting at age nine. At 18 by 24 inch size, it becomes a conversation piece during the visit; and that's what you want. Clinics have reported to me that the immunization poster was the simplest, cheapest, and best intervention. So don't skip the low-tech step. It even works when your EMR has crashed. Next slide. Most parents won't need extra information, but it's great to have resources at your fingertips. And Department of Health has developed a great flyer and pamphlet. And again, these are available in five to six additional languages. I also recommend checking out the other HPV at 9 toolboxes from American Cancer Society, American Academy of Pediatrics, HPV Roundtable, Washington Chapter of AAP. And very soon there'll be resources available on the American Indian Health Commission website. Next. So we talked about training your team, and this is really crucial to your success. Patients need to hear the same accurate message from

your whole team. The HPV cue cards can be used to train everyone in your office from front staff, front desk, phone staff, medical assistants, nurses and providers. And many clinics have success reviewing these materials at huddles or staff meetings. All staff should feel comfortable answering the most common questions about HPV vaccine. The more complicated questions can be saved for the provider. And on the right is the announcement approach pathway. It's a simple and effective training tool to teach to the medical assistants and your providers that teach us how to talk about the HPV vaccine. So as you're getting ready to start your journey with HPV at age nine, print out these resources and post them by your workstation for easy reference. Next. So I'm gonna conclude my section with a mini training on how to recommend it at age nine, so listen up. We know that a high quality provider recommendation is the strongest facilitator of HPV vaccination. The announcement approach uses a presumptive announcement focusing on cancer prevention. It sounds like this: "Marcus is now nine, so today he'll get a vaccine that prevents six HPV cancers." And if a parent is hesitant, connect with them, ask for their main concern. Don't be afraid of their questions. Most questions can be answered quite simply with a sentence or two. And please don't data dump or overwhelm the parent with facts. I personally have been guilty of data dumping, and I can report that it doesn't work very well. So this training tool identifies the most common HPV vaccine concerns and the best ways to address them using research-tested messages. It's gonna be really important to know this information. If a parent declines the vaccine, that's okay, make a plan to recommend again the next year. Things change for parents. And research tells us that 70% of parents who initially decline HPV eventually say yes. The beauty of recommending an age nine is that even if the parent initially says no, you'll be able to discuss it again with them at age 10, 11, and 12, and often they'll say yes and you won't miss the chance to protect them from HPV cancers. Next slide. So time for another knowledge check before we move on. Which is essential for implementing age nine recommendations? A, electronic medical record prompt changed to age nine; B, a 100% of providers and staff on board; C, curiosity, willingness to give to try; or D, robust reminder recall and outreach system in place. And the answer of course is C, curiosity and willingness to give it a try. These others are great, but they're not essential. Next. So in summary, HPV vaccine is cancer prevention, and it starts at nine. Starting at nine is simple, successful, and sustainable. I invite you to give it a try with your very next nine-year-old patient. And with that, I'll turn it over to Dr. Jenner, our next presenter. Thank you.

- Hi. Thank you, Dr. Zorn. That was great. So I'm gonna just talk briefly about how we implemented HPV at 9 in our clinic. I'm medical director for our Franciscan Medical Group. Next slide. So I joined the HPV Task Force in Washington about two years ago, and I heard other providers were giving HPV at nine. I'd heard about it, but didn't really feel compelled to change, didn't see a need to change from the 11-year-old bundle. But as I got more and more information about the benefits of starting HPV at nine, I decided to give it a try on just one patient, just like Dr. Zorn said. And I don't like change, so it was a little difficult, but I tried it. And I still can remember the nine-year-old girl who I recommended HPV at nine and the mother and child said yes. I thought, "Okay, I can do this." So I kept offering it at their 9 and 10-year-old checkups, and it became easier and easier and now I have no hesitancy about offering it at nine. Next slide. So with my success, I asked the other three pediatricians in my clinic to start recommending the HPV vaccine at nine. Two out of three of them embraced it quickly, they were like, "All right, we'll give it a try." The other one took a little time, but they're doing it now. And we all found it was easier to recommend at age nine rather than at 11, just having that one vaccine to talk about. And we all found there were fewer questions and conversations about sex when recommending at age 9 and 10. We were really presenting HPV as a cancer prevention vaccine with great efficacy and safety data behind it. Next slide. So now that we were on board, we took the next step of adding a poster to our exam rooms. At the time last year, the Washington HPV Task Force was offering free branded posters with that preteen/teen schedule with a recommendation of starting HPV vaccine at nine. So I went with the large size, the 18 by

24-inch posters. We ordered them for each exam room and the waiting room for two of our largest pediatric clinics. But it was really important that we discussed this new recommendation with our MA and nursing staff, even front desk, really was very important to get them on board because they're often the one who first gets the question, "Am I gonna get a shot today?" So having the MA and nursing staff be on board: "Well, you're nine, Dr. Jenner is gonna recommend the HPV vaccine today." Next slide. So this is a picture of the poster in our exam room. We'll get a little close-up in a minute, but it has a nice, you know, "Protect Your Preteen/Teen with Vaccines." Go ahead to the next slide. And you can still download these pictures from the national HPV Roundtable website. So this has vaccines from age 9 through 16, with the yearly flu included. And then next slide, here's the meat of it, having, "At age 9 or 10, you start with HPV dose one. You can do it at 11 or 12, if you haven't done it." But that's the meat of it. And we really found that this poster speaks for itself. Next slide. So now when I walk into a room, I often have the parent or patient ask me about the HPV vaccine because they read it on the poster. And I can also just point to the poster to say, "Hey, you know, they're nine years old today, you're due to start the HPV vaccine," really helps with that presumptive recommendation. It also adds authority to my recommendation. And we have also found it helps parents stay firm in getting a vaccine that day. We all know kids don't enjoy getting shots, so they will try to negotiate their way out of it. But for the parent, they can say, "Well, look, honey, it's on the poster. You're due for the vaccine today." And it also helps prepare my patients to get the HPV vaccine at nine 'cause after their kindergarten shots, they always wanna know when is the next vaccine. And I can say, "Well, look on the poster. It's when you're nine years old, besides the yearly flu." Next slide. So we did hit a bump in the road. I did ask my healthcare system to change our electronic medical record, we use Epic, to start forecasting HPV at 9, but there has been some pushback. Since we share our Epic build across multiple states, the other states aren't as robust at giving a clear recommendation to start at nine, but I'm gonna keep pushing for this. Next slide. So despite that bump, the posters have been an amazing, easy, low-tech way to implement HPV at 9 in our clinic. I really recommend you try it just with one patient. Again, I was a little skeptical at first, but really it is easier than you think. And the ultimate goal is to get better cancer protection for our patients, and starting HPV at nine is going to lead to more adolescents being complete with a two-dose series by 13 and better cancer protection. So now I'm gonna hand it over to Dr. Amy Carter who's gonna talk about how she implemented HPV at 9 in her large pediatric group.

- Thank you Dr. Jenner. So our group, as Dr. Jenner had mentioned, is much larger. We operate across multiple clinics. We at this point have over 90 pediatric providers and we take care of a hundred thousand patients. Next slide. That means we were able to create more of a formal quality improvement project. From those... we were able to take advantage of the Washington Chapter of the AAP and the state DOH program that allowed us to offer MOC credit to the providers. From that project, I'm gonna review the six tips that really led to success for us. The first is, as both Dr. Zorn and Dr. Jenner have mentioned, it's very important to touch all of the staff who interact with patients. Like Dr. Zorn had recommended, we created clear and simple goals. We took more time upfront to educate, because since we're so large we really wanted to standardize the communication. And throughout, we created a culture that provided multiple opportunities for feedback. We find that those living the implementation on the ground are the best to slightly adjust as we go along to make it better and better. And we used data to track and show everybody participating what our progress was. Next slide. So we started with the top-down. Myself, as the chief medical director, and our head nurse, the director of clinical services, formally sponsored the project. But really the heart of implementation was that we created a local champion from each of the different clinical roles in each of our clinics. We had an MD, an NP provider, we had nurses, medical assistants, and our clinic receptionists. That group met monthly to review all the data, but, more importantly, they were on the ground helping support everyone to try it at their own pace and to continue to ask for feedback to make this better. Throughout the organization and our

monthly newsletter, we communicated our progress as a whole, but we also compared our clinic trends. This allowed us to identify early some of the best practices and share those across our different clinics. Next slide. Again, keep it simple. Patients have a lot on their list of questions. Providers and all the clinical staff have a ton of things to get through. We did not want this to feel a burden. We wanted it to feel like we were helping streamline and make everyone's day easier. So our implementation was offer HPV vaccine to all patients starting at the nine-year-old checkup. We really drilled home the why. It's changing the conversation to why this was invented, it's to prevent cancer. And as you've seen, we really found that parents, and even kids, have gotten behind that. Like Dr. Jenner, for some of the first patients that I tried it with myself, I found interestingly those who had older kids, that mom or the dad would be a little bit nervous and the nine-year-old would turn to them and say, "Mom, I don't want cancer. Please can I have the shot?" For anyone in clinical care, it is rare to get a kid to ask for a shot. So that was very powerful. We didn't want each of our 350 staff members to figure this out themselves, so, again, as recommended, we standardize workflows. Next slide. We were fortunate to be able to update our EMR to prompt HPV vaccines starting at nine. And during the six months of our quality improvement project, we found that one of the barriers was it was hard to figure out in our EMR and compare it to the state registry, that question that Kathy asked everybody at the beginning. It took a lot of time to log into the system, so we had very low compliance. So out of that, we ended up implementing the bidirectional connection. Now, before clinic starts, with the click of a button, we can see if kids have gotten HPV at any site throughout the State of Washington. This allowed us to really make it standard of care that all medical assistants should prep all patients before the day starts. We really emphasized not just the well care, but we prep vaccine opportunities even for the sick visits, especially for this preteen and adolescent age group; they don't come in as often as the little kids. So while we also rec recommend the first dose at nine and we recommend the second dose at the 10-year-old checkup, we do have our EMR able to flag that if it's been more than six months, and they're in for another reason, an injury or a mild illness, it's safe and we want to offer that opportunity as well. Fortunately, we built into our culture the care team huddles at the beginning of the day. So this allowed us to really customize, between the provider, the medical assistant, the nurse, how we wanted to approach specific patients. Next slide. Our education really embraced the fact that people learn in lots of different ways, so we tried to prevent multiple modalities for learning. We did in-person trainings. We videotaped this and put it on our secure intranet so that those with busy lives who prefer to do this in their own time could do asynchronous learning. We incorporated both audio and visual options for learning. And as Dr. Zorn pointed out, one of the most important things was that over the six-month project, we really just reiterated that main message, "Give the vaccine at nine. It's safe, it's effective." We tried hard to create a culture that it's very safe to ask any question. And as Dr. Dr Zorn pointed out, we found, we knew this before, but it was really powerful to live through, that, of course, we're all humans; vaccine hesitancy exists not only among our patients, but among staff. So we took the time before we started talking to our patients to really answer all the staff questions, the friend of a friend who had scared them or they'd read something on the internet, and we really just worked through what science shows at this point in time. We did the old medical school model of: see one, do one, teach one. So, again, gave people opportunities to participate and/or lead at their comfort level. And really the most important intervention was that we had people who believed in this change at the ground level that is available to anyone participating on any given day. Next slide. We targeted our message, although it was the same message, we presented it differently to different stockholder groups. So for our providers, really the main questions were why. And as Dr. Zorn went through, it really was just a reflection of the ongoing evolution of research. It works better at a younger age, that was incredibly compelling. The protection's long lasting. So unlike the COVID vaccines where people were getting frustrated, since we implemented this in the middle of the pandemic, with, "Do I need yet another booster?" this is more like MMR, where it's when you're done, you're done. And that's very compelling. And, again, as I mentioned, we educated all of the clinicians about the fact that it

can be safe to give HPV if a kid's in for a broken arm or if they have just a mild cold. Our nurses were acknowledged as really the first line of the detailed discussions that parents wanted to have over the phone or through the portal, and empowered them to understand all of the science and answer the questions rather than asking a provider and getting back to them later. Being able to solve it in the moment was much more powerful. The medical assistants, we kept very simple. Again, everybody preps before the patients arrive. Everyone who's nine and over who's due for a vaccine gets that strong recommendation. We believe that parent choice does work best. So in the situation where the child is due for it, the child and the parent accept it, we used our morning huddles to do verbal orders to allow the MAs to give the kids the vaccine before the provider went into the room. That allowed us to spend the 15-minute waiting period with the provider in the room providing that extra level of comfort for the families. If the parents or guardians were unsure or did not want the vaccine, of course we do not fight with them. That really just became a deference to, "When the provider gets in the room, they can answer any other questions you have." And really importantly, Dr. Zorn had taught us that that first contact with the patient is often when they call to schedule. So we put a lot of energy into making sure everybody understood not just why we do this, it's cancer prevention, but when do we do this, so they can appropriately direct parents to feel comfortable scheduling at the right time. Next slide. And then after we had our internal communication down comfortably, we turned to educating our patients. We didn't want it to be the very first thing they heard when they came in. Next slide. We used our social media to introduce this concept. Next slide. We wrote a blog and posted it on our website so people could, again, our patients could asynchronously learn as well. Next slide. We did customize our own exam room poster and used our Allegro colors and really pointed out HPV is one at 9, one at 10. And like both Dr. Jenner and Dr. Zorn have said, this, if you do nothing else, was absolutely hands down the most powerful intervention. Parents and kids respond incredibly well to it. Next slide. For those few families who do have more questions, we really enjoyed the Washington DOH pamphlet. But in our modern world, most of our parents did not wanna take paper out of the office, so we added that as a QR code with a laminated handout in the office where we could reiterate our three most important points: it prevents cancer, it's safe and effective, it's long lasting. And the parents can use the QR code to scan the pamphlet. Again, DOH makes it available digitally. And then when they're in the comfort of their own home, they can go through the details with their significant other and decide before they come back to the next visit. Next slide. As I mentioned, we really made it easy for people to give feedback. We had an email option to the HPV project group, the local champions were asking often. I was in the clinics doing this with my patients, but also available for lots of questions. Next slide. We checked in monthly, again, at the organization, clinic, and even at the provider level. Privately we showed each individual provider what their their personal progress was. At the end of our six-month QI project, we presented to the whole organization where we started and where we ended. And we've continued to use data to show our ongoing progress, so at the one year mark and now two years later. Next slide. One of the most exciting take-home messages that I can offer is that after those six months, we really have not done any extra work. We worked hard at the beginning to build this into our culture. And as you can see, the first part of the slide was that rapid acceptance of staff/providers and patient/parents to get the HPV vaccine at the 9 and 10-year-old well care. And it has stayed at those high levels without us having to do anything else. Next slide. The gray vertical line on these two graphs shows the end of our implementation. And what you can see is we've been really delighted that our HPV coverage rates continue to rise even after we're done with the project. So I'd like to leave you with the concept that a very small intervention, just offering the HPV vaccination beginning at age nine, has had a huge impact on patients. You can see from our numbers thousands of kids who were protected against cancer in a very short amount of time have now been protected against cancer. And interestingly, we found that family acceptance was pretty equal among both females and males. And with that, I'll turn back over to Phil.

- Thank you. Those were really awesome presentations. So I did wanna mention, on our slides here we have some additional resources. So we've got... Of course our Office of Immunization has a page with a variety of immunization materials and resources. We do have our school and childcare immunization page as well, which does highlight some HPV materials. We've got our IQIP page, Immunization Quality Improvement for Providers. And there is a cool HPV vaccination video that maybe you can watch in your spare time that is pretty cool. Okay. So before we get to questions, or I should say if you have any questions, now's a great time to put them in the questions and answer panel. I'm gonna go over continuing education here real quick and then we'll see about answering any questions people might have. So as I mentioned at the beginning of the webinar, we have continuing education available for physicians, nurses, medical assistants, pharmacists, and pharmacy techs. Of course this is free. And the expiration date for this credit is May of next year. So what do you need to do to get credit? Well, if you've watched this webinar, you've already, you know, done half of it. But we will have this webinar recording available on our webinar webpage in a week or two, so you can also watch the recording for credit. And then you'll need to complete the evaluation. So after this webinar ends, you'll get a popup in your browser that will be the evaluation or the survey. If you miss that, zoom will be sending an email tomorrow just saying, you know, "Thanks for attending the webinar." And the evaluation link is also in that email. So if you miss it or say you're on the phone or whatever, just check your email tomorrow and then complete the survey. And then our staff review all of those and then send out certificates within a few weeks. So please be patient. It's not an immediate turnaround, but we're doing our best to get them out as soon as possible. If you have any questions about continuing education, you can contact Trang Kuss and [trang.kuss@dog.wa.gov](mailto:trang.kuss@dog.wa.gov). And of course you all will have my email contact as well through Zoom. And if you somehow misplace Trang's email, you can email me as well and I can forward that on. Okay. Let's see if we have some questions here. Okay, sweet. So the first question here is for Dr. Carter. How did patients respond to, or did they respond to the social media education around HPV at 9?

- Well, I'm happy to report that actually it was all very positive. Those who didn't know about this before began to ask questions, and it really just was an opportunity to open the dialogue.

- Okay. This next question is from Kenneth Hill: "The provider from Allegro indicated they gave staff verbal orders to give vaccines." Oh, sorry. "Washington State does not allow medical assistants to operate on verbal orders. How was your clinic able to bypass current MA RCWs and WACs in place regarding need for written orders for MAs to act on?"

- Thank you so much for catching that. Verbal, it wasn't a true verbal order. We have both standing orders and the providers enter the electronic order into the chart as well. What I meant to say was that in the huddles, it was verbally reminded during the change that they are allowed to do that at the beginning. I hope that answers the question.

- Let's see, this next question... Kathy, I don't know if this is a question for you or if somebody else can answer. But this person said they're interested in knowing what promotion besides letter to providers was done during the rollout of age nine in the state registry.

- Could you repeat that question again? I'm sorry.

- Yes. What promotion, besides sending a letter to providers, was done during the rollout of the HPV at age nine recommendation in the IIS?

- Yeah, so the notification of that information went out multiple times in the month of January. There was also an update on kind of the plan for the change based on the feedback that also went out to be able to share information. The info was posted on the Department of Health webpage, and then it's been talked about... DOH's very involved in the HPV Task Force for Washington State, the prevention taskforce. And so there's also a lot of discussion there and preparation and collaboration, really, to work on really increasing rates of vaccination to reduce the risk of disease. So those are all things that have been done. There have been some other component pieces. It's been shared more broadly beyond with providers with our medical group from MCO that manage the insurance contracts and other partner groups, where the VAC group is a multidisciplinary or collaborative group that actually represents healthcare providers kind of across the spectrum as well as others in the community that are involved in immunizations and care for children. So a pretty broad sweep of that information went out, so...

- Okay, this next question, I might actually be able to answer this. Is there a poster that relates more to school vaccinations but has HPV listed that can be available for school nurses to hang up in schools? So as far as Department of Health resources, the only thing I can think of in our school materials is we do have a backpack stuffer that covers HPV, meningococcal, and Tdap recommendation. But that might be something we can consider maybe making a larger poster that could be hung up to recommend that in school.

- Sounds like a great idea.

- Yes. I love making posters, so I'll write that down and we'll see what we can do. Is there data showing the efficacy rates to get HPV vaccine as an adult versus between 9 to 15 years old?

- I'll probably take this. I'm not exactly sure what the question is asking, but I'll try to give a broad answer. So we know the vaccine works best to prevent HPV infection, genital warts, precancers, and cancers when you get it done early, so younger is better. And that the younger kids, really the 9 to 14 age range, they only need a two-dose series because their immunity is just better, and the best is 9 to 12. But that being said, people between ages 16 and 26 should still, or 15 and 26 should still get the vaccine, it benefits them. So it may not benefit them as much, especially if they've had other, if they've already had sexual encounters, but it's really important that they get vaccinated all the way up through age 26. And then we know that 27 and up really only benefits a very small percentage of people who maybe have not had any sexual encounters before or have had very few sexual partners. So the best is younger, and then just get... But any of your patients that you're seeing who are under age 26, you should offer the vaccine for them as well; don't write them off, please get them vaccinated as well. But my whole mission is to focus on the young people so we get them all vaccinated then and we don't even have to worry about it as they get older. I hope that answers.

- That's great. Well, that was the last question. And I know we are five minutes over time. So again, I wanna thank our presenters. It was really awesome information, and I hope it was helpful to everybody. So I just wanna say I hope everybody stays cool this week and I hope you have a great day. Thank you very much for attending.

- Thank you for having us, Phil, and Kathy, and Trang.

- [Speaker] Thank you.

- Trang, on your side, I think you'll need to close the webinar.